

SLEEP, SLEEP DISORDERS, AND BIOLOGICAL RHYTHMS		
Illinois Learning Standards Science – Stage I – Grades 8, 9, 10		
Lesson	Standard	Performance Descriptor
1, 2, 3, 4	11A.1	Formulate independent content-specific hypothesis referencing pertinent reliable prior research, or proposing options for appropriate questions, procedural steps, and necessary resources.
1, 2	11A.2	Design an inquiry investigation which addresses proposed hypothesis, determining variables and control groups, incorporating all procedural and safety precautions, materials and equipment handling directions and data-collection formatting preparations, or securing approval for all procedures, equipment use and safety concerns.
Pre-lesson, 1, 2	11A.3	Conduct inquiry investigation, using technologies for observing and measuring directly, indirectly, or remotely, completing multiple, statistically-valid trials, or accurately and precisely recording all data.
1, 2, 3, 4	11A.4	Interpret and represent analysis of results to produce findings that support or refute inquiry hypothesis, evaluating data sets to explore explanations of outliers or sources of error and trends, or applying statistical methods to compare mode, mean, percent error and frequency functions.
All lessons	11A.5	Present and defend process and findings in open forum, generating further questions, explaining impact of possible sources of error, or reflecting on and evaluating peer critiques and comparable inquiry investigations for consolidation or refinement of procedures.
1, 2	12A.1	Apply scientific inquiries or technological designs to explain metabolic processes within cells and between organisms and their environment, explaining gas exchange, food processing, transport, excretion, locomotion, body regulation, and nervous control, investigating enzyme actions in various reactions, or describing the applications of the polar nature of water and the pH index in biochemical reactions.
Illinois Learning Standards Science – Stage J – Grades 11 & 12		
Lesson	Standard	Performance Descriptor
1, 2, 3, 4	11A.1	Formulate issue- hypothesis, reviewing literature as primary reading sources, differentiating between subjective/objective data and their usefulness to the issue, or examining applicable existent surveys, impact studies, or models.
1, 2	11A.2	Design an issue investigation, proposing applicable survey and interview instruments and methodologies, selecting appropriate simulations, or projecting possible viewpoints, variables, applicable data sets and formats for consideration.

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Pre-lesson, 1, 2	11A.3	Conduct issue investigation (following all procedural and safety precautions), using appropriate technologies, interviewing associated entities or experts, testing applicable simulation models, or completing all data collection requirements.
1, 2, 3, 4	11A.4	Interpret and analyze results to produce findings and issue resolution options, evaluating data sets and trends to explore unexpected responses and data distracters, evaluating validity and reliability, or substantiating basis of inferences, deductions, and perceptions.
All lessons	11A.5	Report, display and defend the process and findings of issue investigation, critiquing findings by self and peer review, generating further questions or issues for consideration, evaluating comparable issue resolutions or responses for action, or generalizing public opinion responses.
1, 2	11B.3	Collect and record data accurately, using consistent metric measuring and recording techniques and media with necessary precision, documenting data from instruments accurately in selected format, or graphing data appropriately to show relation to variables in design solution proposal.
1, 2	12A.1	Apply scientific inquiries or technological designs to explain biochemical reactions, diagramming metabolic, hormonal, regulatory, feedback or transport molecular models in and between organ systems, explaining homeostasis, or tracing the balance of cellular ATP.
5	13B.2	Analyze scientific breakthroughs in terms of societal and technological effects, citing how beliefs and attitudes influence advances, examining global distribution of energy, natural or fiscal resources, or evaluating how scientific advances from different cultures are received.
5	13B.4	Analyze local, state, national, global scientific policies in terms of costs, benefits, and effects, identifying policies which have affected local needs, costs, or products, assessing national or global costs of policies from American or non-American perspectives, or evaluating data used in media explanations of resource, technology, or policy impact.

Illinois Learning Standards Mathematics – Stage I – Grades 8, 9, 10

Lesson	Standard	Performance Descriptor
Pre-lesson, 1	6B.2	Determine an appropriate numerical representation of a problem situation, including roots and powers, if applicable.
Pre-lesson, 1	6B.5	Develop fluency in operations with real numbers using mental computation or paper-and-pencil calculations for simple cases and technology for more-complicated cases.
Pre-lesson, 1	6B.6	Judge the reasonableness of numerical computations and their results.

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Pre-lesson, 1	6C.2	Determine and explain whether exact values or approximations are needed in a variety of situations.
1, 3	8B.4	Create and connect representations that are tabular, graphical, numeric, and algebraic from a set of data.
All lessons	10A.5	Make decisions based on data, including the relationships of correlation and causation.
1, 3	10B.2	Discuss informally different populations and sampling techniques.
Illinois Learning Standards English Language Arts – Stage I – Grades 8, 9, 10		
Lesson	Standard	Performance Descriptor
All lessons	1A.4	Identify and analyze the meanings of specialized vocabulary/terminology.
All lessons	1B.2	Relate reading with information from other sources (e.g., prior knowledge, personal experience, other reading) using a variety of strategies.
All lessons	1B.6	Clarify meaning of text by focusing on the key ideas presented explicitly or implicitly.
All lessons	1C.3	Interpret concepts or make connections through analysis, evaluation, inference, and/or comparisons.
All lessons	1C.6	Summarize and make generalizations from content and relate them to the purpose of the material.
All lessons	1C.10	Interpret tables, graphs, diagrams, and maps in conjunction with related text by drawing conclusions to support text.
3, 4, 5	3B.2	Compose a clear thesis/claim that contains the main idea in an essay.
All lessons	3B.3	Defend word and/or technique choice appropriate for specific audiences.
All lessons	3C.1	Compose informational writing (e.g., narrative, expository, persuasive, argumentative) that supports a topic or thesis statement with well-articulated evidence.
5	3C.2	Compose an argumentative paper that objectively evaluates 2 or more positions on an issue and selects the best position, based on the evidence presented.
All lessons	4A.1	Demonstrate understanding of material, concepts, and ideas in formal/informal presentations.
All lessons	4A.2	Analyze, synthesize, and evaluate information from recorded materials and live presentations.
All lessons	4B.10	Discuss a problem within a group setting, list and evaluate possible solutions to attempt consensus.
All lessons	5B.1	Analyze and evaluate information.
All lessons	5C.1	Match the method of inquiry to the question or problem.

Illinois Learning Standards Health – Stage I – Grades 8, 9, 10		
Lesson	Standard	Performance Descriptor
4	22A.4	Recognize the differences between communicable and non-communicable diseases.
5	22B.6	Discuss the role that the media has had and should have in the dissemination of health information and in the promotion of health-related products.
1, 2, 4	23A.1	Recognize that all of the body's systems interrelate and impact each other.
All lessons	23A.4	Investigate ways and behaviors that can improve or maintain the functioning of the body's systems.
1, 3, 4, 5	23A.5	Recognize personal health behaviors and choices that help or hinder the functioning of the body's systems.
1, 3, 4, 5	23B.2	Analyze how behaviors can impact the maintenance of health and/or the prevention of disease.
1, 2, 4, 5	23B.3	Discuss the effects of sleep deprivation on the body.
4	23B.5	Know the effects that disease can have on the body's systems (e.g., diabetes, cancer).
3, 4, 5	23B.8	List choices that have a positive influence on health.
3, 4, 5	23B.9	List choices that have a negative influence on health.
3, 4, 5	23C.4	List interventions and strategies that can be utilized in a variety of health-related situations.
3, 4, 5	23C.11	Discuss how health-related choices made today can affect a person's physical, mental, emotional, and social growth and development in the future.
2, 4, 5	24B.3	Analyze the options to solve a health-related problem.
2, 4, 5	24B.4	Determine which option best solves the health-related problem.
2, 4, 5	24B.5	Analyze option choices and determine the impact each could have on successfully solving a health-related problem or making a health-related decision.